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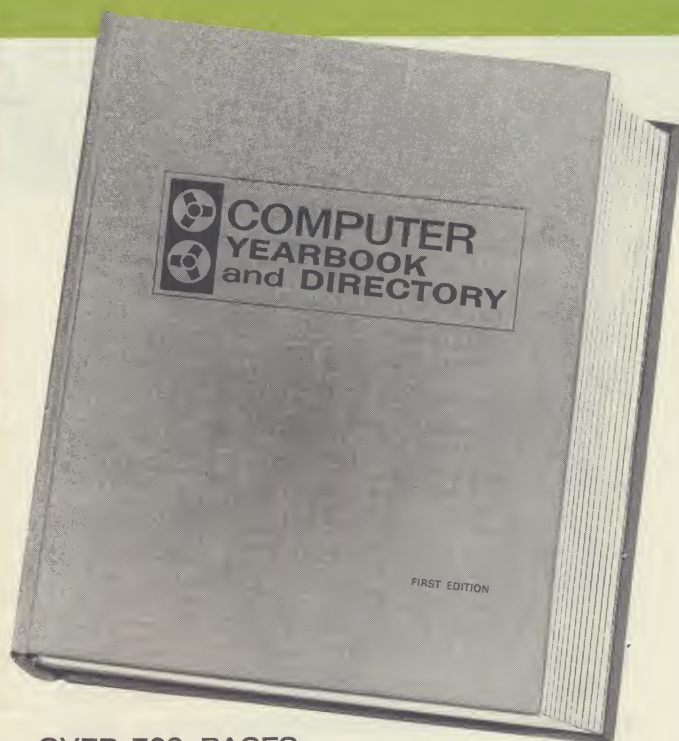AMERICAN
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COMPUTER YEARBOOK and DIRECTORY

A SINGLE SOURCE GENERAL REFERENCE TO THE COMPUTER FIELD

This new reference book gives you more information on computers and their use than any single source ever published. We have waited over fifteen years to bring it to you — it contains the fruits of all of our publishing efforts in this field since 1950.

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BRIEF OUTLINE OF CONTENTS

EQUIPMENT SPECIFICATIONS — Detailed descriptions of computers in common use

EQUIPMENT DIRECTORY — Guide to all computers produced since 1952

GLOSSARY — definitions of more than 1500 computer terms

SYMBOLS — commonly used symbols for systems people and programmers

STATE OF THE ART REPORTS — cover most types of organizations and many varied functions

REFERENCE DIRECTORIES — Manufacturers, Associations, Educational Institutions, User Groups, Audio-Visual Aids on Computer Use, Book Directory, Bibliographies, Products and Services, and many other valuable features
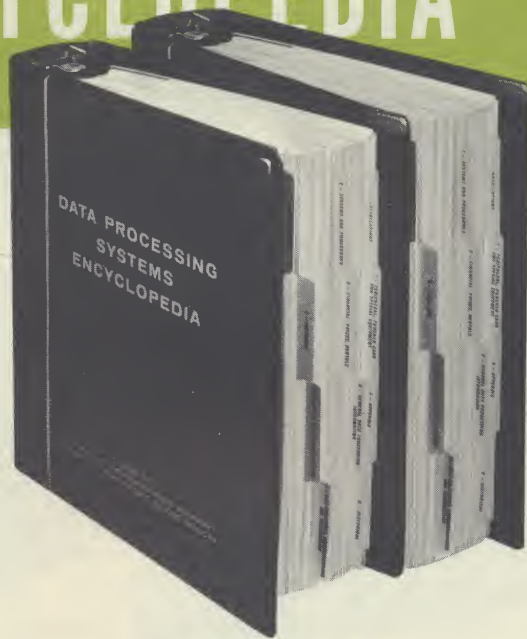
DATA PROCESSING
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Now . . . complete, detailed information on all
DATA PROCESSING EQUIPMENT

— gives you, for the first time, a single source for evaluating all existent equipment to make effective comparisons.

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This Encyclopedia Service contains detailed specifications, descriptions, illustrations, comparative charts, and prices — information you need for an expert analysis of equipment to suit your present and future needs.

Monthly Updatings bring you new material on listed equipment plus complete specifications on newly introduced machines. The updatings also contain new information on equipment prices and rentals, systems and procedures, computer applications, software, data collection, communications, and transmission. There will also be a variety of reference material, such as a census of computers presently installed in the United States and Europe, and bibliographical material on the important articles and books published in the data processing field. This service is designed to keep you current on all the developments in a rapidly changing field.

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Systems Encyclopedia with updating for three months — $95.
Additional updating — $95 per year.

PARTIAL CONTENTS

ELECTROMECHANICAL EQUIPMENT

A history of punched card and associated data processing equipment.

An introduction to punched card data processing.

Illustrations of more than 400 pieces of equipment, a detailed description and specifications of each.

A complete index of the names and addresses of the manufacturers is included. There is a glossary of terms used in the punched card field.

ELECTRONIC EQUIPMENT

An introduction to electronic data processing equipment.

Illustrations of nearly 150 electronic computers or computer systems, a detailed description of each, the components of the system, input and output media, auxiliary components, programming details, power requirements and physical characteristics; also magnetic ink character recognition and optical scanning devices and equipment.
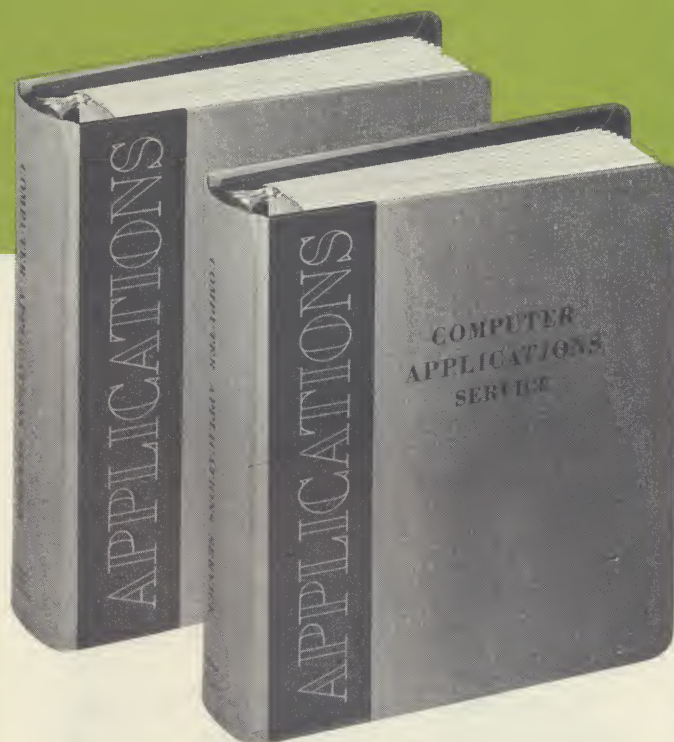
COMPUTER APPLICATIONS SERVICE

This monthly service presents use of electronic data processing equipment for many types of organizations.

Each application has detailed documentation, such as input source document formats, card formats, tape record layouts, output report formats, and all necessary forms and diagrams. Most popular general purpose computers are represented.

Some of the application subjects are: accounting, A/R, actuarial, advertising control, banking, billing, brokerage accounting, CLAN, education, engine checkout, flight test evaluation, gas dispatching, general ledger, insurance, inventory control, load control, management, manufacturing and material control, mineralization data, operations research, order processing, payroll, PERT/Cost, plant location, production control and planning, quality control, research, reservation control, revenue accounting, sales analysis, statistics, table lookups, and many more.

To start your subscription you receive more than 50 varied applications. The service continues with supplements to be filed in the substantial looseleaf binder provided with the service.

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- Whether you now use a computer or are considering one, highly skilled planning is needed to make sure your investment shows an early profit.
- In recent years all too many firms have had to start virtually from scratch, and learn by experience what they can and cannot do with computers. In the process there have been many million-dollar boners.
- Fortunately, there is now a large body of experience available — and reported in COMPUTER APPLICATIONS SERVICE. This valuable service helps you to avoid financially risky trial-and-error, and profit by the experience of others who had to cope with problems similar to your own.
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INFORMATION SYSTEMS BIBLIOGRAPHIC INDEX

Covers the period 1956 - 1964

The past ten years have seen revolutionary changes in management systems. The advent of electronic data processing has affected every phase of management — corporate decision making, scientific management techniques, economic planning, personnel relations, inventory and production considerations. Not a single management function has been unaffected.

Management men at all levels are challenged to keep up with the latest and most pertinent information.
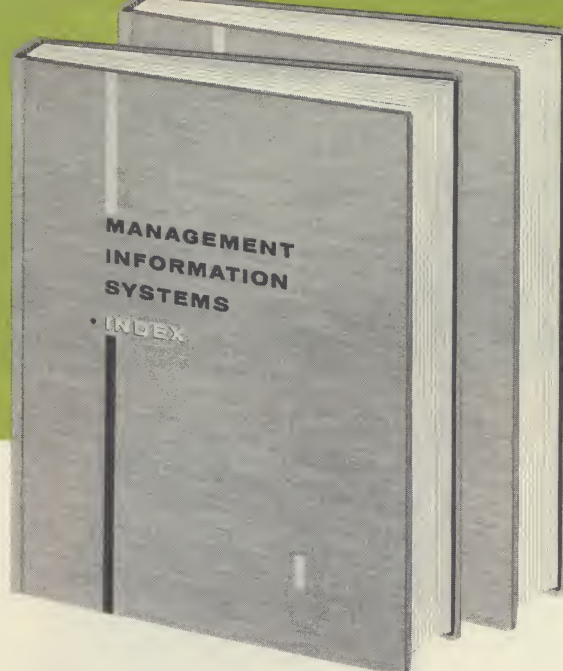
Now there is a comprehensive index that contains thousands of references to help you find this information. Hundreds of publications carry thousands of articles on these subjects each year — hundreds of books and information services are available.

This Index classifies material from over 600 periodicals into 101 main categories. The Index also includes abstracts of 127 books on management systems.

Volume One contains index references from 1956 to 1962.

Volume Two covers the years 1963 and 1964.

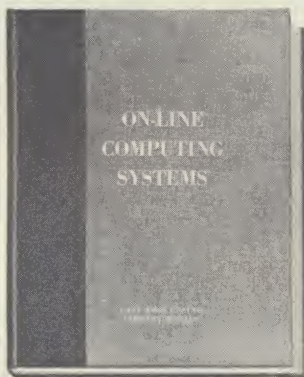**Two-volume set — $25
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INTELLIGENCE	GOVERNMENT	MINING
AUDITING	HARDWARE	ON LINE
BANKING	HAZARDS	OPTICAL SCANNING
BEHAVIORAL SCIENCE	HOTELS	ORDER PROCESSING
BEMA	HUMOR	ORGANIZATIONS
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BIONICS	INFORMATION	PEOPLE IN THE FIELD
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COMMAND AND	INSTALLATIONS	PRODUCT CONTROL
CONTROL	INSURANCE	PROGRAMMING
COMPUTERS	INVENTORY CONTROL	PUBLISHING
CONFERENCES	LANGUAGE	PUNCHED CARDS
CONSTRUCTION	TRANSLATION	PURCHASING
CONSULTANTS	LASERS	QUALITY CONTROL
CONVERSION	LEASING	REAL TIME
COSTS	LEGAL	REPORTS
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CYBERCULTURE	TRANSLATION	DEVELOPMENT
CYBERNETICS	MAGNETIC TAPE	SOCIOLOGICAL
DATA CENTER LAYOUT	MAINTENANCE	SOFTWARE
DATA	CONTROL	SORTING
COMMUNICATIONS	MAN-MACHINE	STANDARDS
DATA DISPLAY	MANAGEMENT INFO.	SURVEYS
DATA PROCESSING	SYSTEMS	TIME SHARING
DATA PROCESSING	MANAGEMENT	TOTAL SYSTEMS
CENTERS	SCIENCE	TRAFFIC CONTROL
DATA TRANSMISSION	MANUFACTURING	TRANSPORTATION
DOCUMENTATION	MARKETING	UTILITIES
EDUCATION	MEDICAL	VALUE ANALYSIS

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On Line Systems — Motivations and Characteristics
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Multi-Computers Applied to On Line Systems
On Line User Languages

PART III — APPROACHES
On Line Displays — User Technology and Software
Machine Characteristics for On Line Systems
Group Communications in On Line Systems

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Message Switching Plus
Graphic Communications in On Line Systems

PART V — APPLICATIONS
On Line Scientific Applications
Structuring Computers for On Line Systems
The QUIKTRAN System

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Structured and Operand Languages
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Summary

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Use of the Disc File on STRETCH
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IBM File Concepts
Characteristics of the Bryant 4000 Series Disc File
File Storage and the Data Products Discfile Series dp/f-5020
A Comparison of the Characteristics of Modern Discs and Tapes
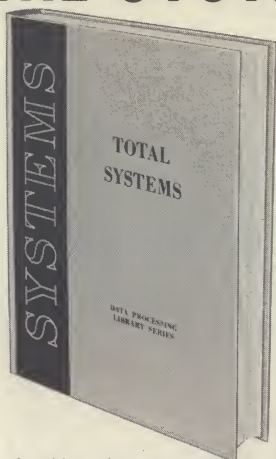Design Criteria for an On Line Nationwide Order Processing System

An Automatic Data Acquisition and Inquiry System Using Disc Files
Disc Files in a Military Supply Depot
Disc File Applications in a Real Time Multi-Computer System
A Disc-Oriented Remote Inquiry Philco 2000 System
Application of a Disc File to Message Switching Systems

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The information in this volume provides the key to the most effective and profitable data processing operations. **Total systems** is the concept of interrelating all company activities with computer-based systems in line with corporate policies and objectives.

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A Management Look at Data Processing: Promise, Problem, and Profit
Total Systems — A Concept of Procedural Relationships in
  Information Processing
The Scope of Management Systems: Past, Present, and Future
A Total Approach to Systems and Data Processing
Understanding Total Systems
Total Command, Management, and Administrative Systems
The Systems Approach to Effective Management
Modern Management Concepts of Computer Systems
Total Systems Approach to Business Management
Data Processing Techniques for Management by Exception

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Effective Electronics Planning and Programming
Total Systems Approach to Automatic Data Processing Planning
Managerial Responsibility in Planning for Computers
Planning Considerations
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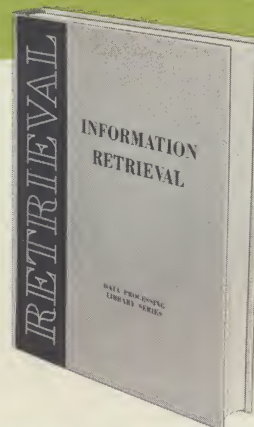Lumbermens Mutual Insurance Company: Conversion to Data Processing
Martin-Marietta Corporation: Centralized Operations Control
Canadian Pacific Railway Company: Integrated Data Processing

  Bibliography
  Author Index

INFORMATION RETRIEVAL MANAGEMENT

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Edited by Lowell H. Hattery

This book provides a broad systems approach to the storage and retrieval of information. Mainly, the subjects covered fall into five categories: the general problem, the management problem, communications aspects, problem definition, and systems experience.

CONTENTS

The Systems Concept in Documentation
What Must Give in the Documentation Crisis?
A System of Information Systems
Status of Technical Information Centers
Functions of a Technical Information Center
Technical Information Services in an Industrial Organization
Designing an Information Center to Meet a Real System Requirement
Management's Evaluation of Information Services
Financing a Technical Information Center
Documentation Needs of Scientists
Communication Between Computer and User in Information Searching
Automated Intelligence Systems
Guidelines to Mechanizing Information Systems
Compatibility of Information and Data Systems Within a Company
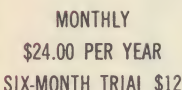Economic Justification — Factors Establishing Systems Costs
International Activities in Documentation
Computers, Communications, and Science — Extending Man's Intellect
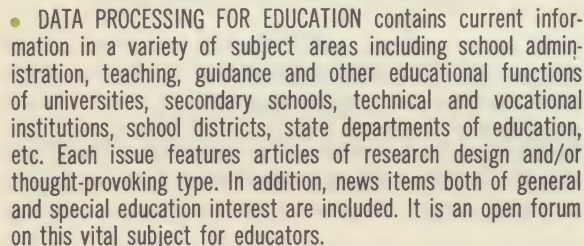The Management Process and Science Information Systems

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TYPICAL TOPICS COVERED

The Systems Concept in IR ● Industrial Information Departments ● Developing IR Systems on Computers ● Time, Cost and Value Factors in IR ● Information Presentation Systems ● Measuring the Value of Information Services ● Classification Systems for IR ● Science-Information Personnel ● Centralized Internal Communications ● Training the Science Information Officer ● Relationships of IR and the Management Process ● Economic Justification for IR System Costs ● Compatibility of Information and Data Systems ● Automating Information Systems ● Communication Between Computer and IR User ● Financing the Science Information Function ● Information Storage in Micro-Space.
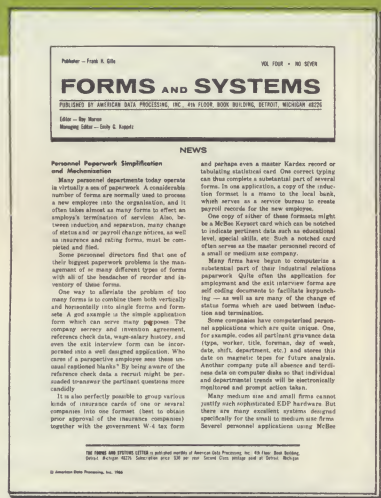
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● DATA PROCESSING FOR EDUCATION contains current information in a variety of subject areas including school administration, teaching, guidance and other educational functions of universities, secondary schools, technical and vocational institutions, school districts, state departments of education, etc. Each issue features articles of research design and/or thought-provoking type. In addition, news items both of general and special education interest are included. It is an open forum on this vital subject for educators.

Here are titles of a few articles from recent issues:

● Information Retrieval in Education ● Computers for the Rank and File ● Computer Sectioning Program at Washington State University ● Computers and a College of Education ● Preparation and Scoring of FORTRAN Programs by Computer ● Administrative Data Processing ● Inexpensive Input Technique for Mass Programming and Problem Solving on Computers ● IIT Program of Secondary School Computer Support ● Data Processing in Junior High Schools ● EDP in the Livonia (Mich.) School System ● University of Hawaii Electronic Computer Taught to Converse With Physicists ● Informational Flow Theory and Concept of Management: A Universal Concept ● Data Processing in Schools — Where? ● What School Administrators Need to Know About Electronic Data Processing ● Thoughts on the Computer and Education ● ALGOL at Case ● Optical Scanner Approach to Attendance Accounting on the Secondary Level ● Keeping Up with the Field ● State Departments of Education — the Key to Educational Data Processing ● Data Transmission — Future in Education ● Northeastern University Test Scoring Computer Applications ● Computer-Based Instruction: Today and Tomorrow ● The Scarce Data Processing Technician ● Generalist Education for Systems Analysis and Design ● EDP and the Administrator: A Changing Role

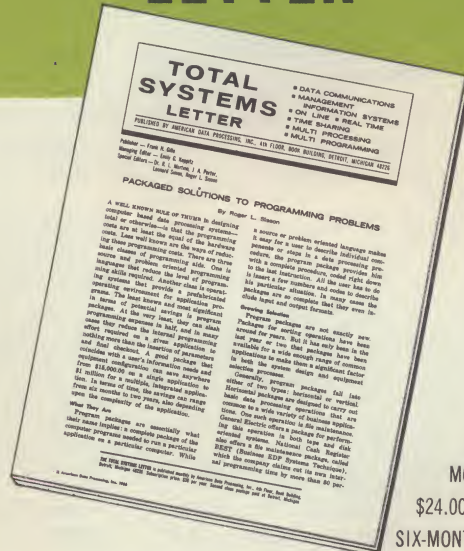## ORDER A TRIAL SUBSCRIPTION TODAY

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This is chiefly an interpretive and analytical service with counsel provided by top management consultants. This service provides the key to the most effective and profitable data processing operations. Total systems (sometimes referred to as management information systems) is the concept of inter-relating all company activities with computer-based systems.
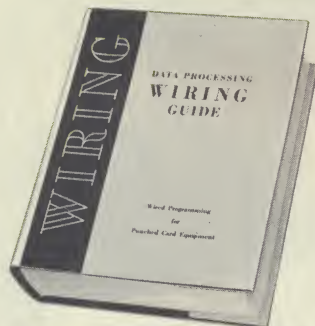
If you, like so many others, have had a tendency to be principally "hardware oriented," this service will help get you on the systems track. If you have been thinking largely in terms of individual applications of data processing equipment, this service will motivate you to think of the more broad relationship of hardware and systems to overall operations.

This newsletter is a natural follow-up to the successful ADP book, TOTAL SYSTEMS.

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DATA PROCESSING WIRING GUIDE is a comprehensive reference manual of wired programming for punched card equipment. It contains nearly 200 articles — more than 100 different wiring procedures!

The WIRING GUIDE can be put to work immediately to increase the effectiveness of data processing operations and save valuable personnel time and energy. In this collection of tested wiring procedures are:

Consecutive Number Listing; Quarterly Earnings Report; Page Numbering; Control Break; Digit Emitter; Zero Balancing; Alpha Sorting; Reuse of Steps with Program Select; Tax Computation; Coding Source Invoice; Verification; Increasing Storage; MLR; 1401 Program Conversion; Split Column Timing; Four Field Crossfooting; Total Control; Currency Conversion; Spacing; Percent Calculation; Total Cycle Elimination; Increase Output Punching Capacity, and many, many more, complete with diagrams.

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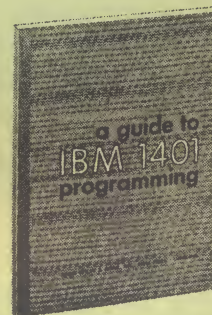
One of the most significant developments in punched card data processing in many years — now you can enter up to 240 digits in a single 80-column card! Although multiple punching is not entirely new, what is new is the use of the binary system applied to recording numerical figures up to three digits in each column of the card.

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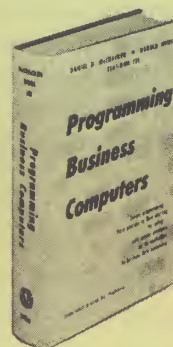
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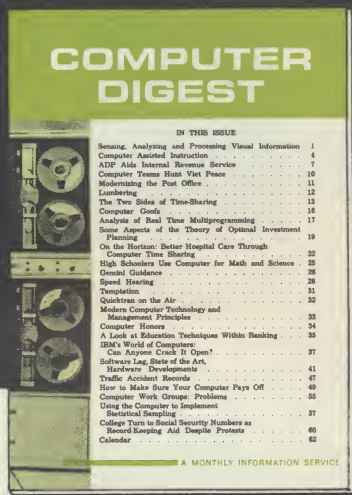
A GUIDE TO IBM 1401 PROGRAMMING

Now — with this book — you can teach yourself the principles of programming and the basic concepts of electronic data processing for the IBM 1401. Author-expert Daniel D. McCracken in early chapters presents the basic ideas of data processing methods and equipment, then proceeds to a detailed discussion of 1401 programming concepts and techniques. Completely illustrated, with examples and case studies, review questions and exercises. Timely! Easy to use! 199 pages $5.75

PROGRAMMING BUSINESS COMPUTERS

This book is directed to the reader who lacks an extensive background in mathematics but who is involved or expects to be involved in day to day application of computers to business data processing problems. Daniel McCracken, Harold Weiss and Tsai-Hwa Lee cover programming from analysis to flow charting to coding, with special emphasis on its application to business data processing. They employ a hypothetical computer to represent features of various machines. They also include an examination of advanced techniques such as automatic coding and large random access storage devices, and conclude with a summary of steps necessary to establish a computer application, and a critical examination of the accounting and auditing problems associated with electronic data processing. 510 pages $9.50

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COMPUTERS	LANGUAGE TRANSLATION
CONFERENCES	LEASING
CONSTRUCTION	LEGAL
CONSULTANTS	LINEAR PROGRAMMING
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